

What is claimed is :

1. A method for preparing carbon nanotube from a liquid phased-carbon source, wherein the method uses a liquid phased-hydrocarbon based material as 5 carbon source; and comprises the steps of

heating and pressurizing said carbon source to the range of critical temperature and critical pressure, and

reacting and cooling said carbon source in the presence of a metal seed catalyst to induce the growth of carbon nanotube.

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2. The method of claim 1, wherein said metal seed catalyst is selected from the group consisting of a metal nanoparticle, a metal complex and a metal compound capable of spontaneously generating a seed during the reaction.

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3. The method of claim 2, wherein said metal is at least one metal complex selected from the group consisting of a transition metal such as cobalt, nickel and iron; and a noble metal such as platinum and palladium.

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4. The method of claim 1, wherein said hydrocarbon based material is used in the amount of from 80 to 99.999 wt%, while said metal seed catalyst is used in the amount of from 0.001 to 20 wt%.

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5. The method of claim 1, wherein said hydrocarbon based material is at least one hydrocarbon selected from the group consisting of a saturated hydrocarbon, an unsaturated hydrocarbon, an aromatic hydrocarbon and a derivative thereof.

6. The method of claim 1, wherein said reaction temperature maintaining the

critical state of said carbon source is ranging from 200 to 800°C.

7. The method of claim 1, wherein said reaction pressure maintaining the critical state of carbon source is ranging from 1 to 400 atm.

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8. The method of claim 1, wherein said critical state equilibrating between liquid and gas phases is maintained for 1 min to 30 hrs.

9. The method of claim 1, wherein said heating and cooling rate are regulated 10 within the range of from 0.01 to 50°C/min.

10. The method of claim 9, wherein said heating rate is regulated within the range of from 1 to 30°C/min, and said cooling rate is regulated within the range of from 1 to 30°C/min.